

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of: Francine R. Chen et al.

Application No.: 10/626,875

Examiner: Burke, Jeff A.

Filed: July 25, 2003


Docket No.: A3053-US-NP  
XERZ 2 01564

Title: SYSTEMS AND METHODS FOR LINKED EVENT DETECTION

APPELLANT'S REPLY BRIEF

Appeal from Group 2165

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CERTIFICATE OF TRANSMISSION	
I certify that Appellants' Reply Brief Under 37 CFR 41.41 is being filed on the date indicated below by electronic transmission with the United States Patent and Trademark Office via the electronic filing system (EFS Web).	
	Signature 
	Printed Name Adam L Benson

**Reply to the Examiner's Answer mailed December 11, 2009**

1. *Formal matters.*

The Examiner's Answer mailed December 11, 2009 includes Sections (1), (2), (3), (4), (5), (6), (7), (8), and (11), the content of which is believed to be consonant with corresponding sections of Appellants' Appeal Brief. Accordingly, Examiner's Answer Sections (1)-(8) and (11) are not further addressed herein.

The § 101 and § 103(a) rejections listed in Examiner's Answer Section (9) – Grounds of Rejection employ proposed reference or reference combinations as in the Office Action mailed April 10, 2009 (hereinafter "Office Action") and are consonant with Appeal Brief Sec. VI. The articulations of the rejections appear to be substantively similar to those set forth in the Office Action, and were addressed in the Appeal Brief. Accordingly, Examiner's Answer Section (9) is not further addressed herein.

2. *Reply to Examiner's Answer Section (10) – Response to Arguments.*

A. *Reply respective to the § 103(a) rejections of claims 1-2, 20-21, 39-40, 58-59 and 81-84 (and remaining dependent claims) alleging obviousness over Sundaresan in view of Pirolli and further in view of Maybury.*

At page 34, the Examiner's Answer contends that:

- (1) Sundaresan clearly discloses creating a structured vector for each document based on extracting textual and structural information from the document (col. 10, lines 5-13), in this case structural information can read on the URL of the document, and
- (2) The claimed limitations of claim 1 **do not seem to disclose the utilization of the source-identification, therefore the applicant's is arguing limitations not found in the claim language itself. The claim**

**merely recites the determination of source-identified training stories and does nothing further with the source information.** (emphasis in original).

With regard to argument (1), the structural information of the document in Sundaresan cannot be read on the URL of the document. As stated in the Examiner's Answer, the URL of a document corresponds to a location of the document, and thus does not relate to the structural information contained *within* the document. Accordingly, the vectorization of a document in Sundaresan does not utilize the URL (i.e., location information) of the document.

Furthermore, with regard to argument (2), the Appellant is not arguing limitations that are not recited in claim 1 since claim 1 recites determining source-identified training stories wherein the determination of link label information for at least one story-pair indicates the existence of at least one link between a pair of stories in the source-identified training stories. Thus, the determination of link label information directly depends on properties of the source-identified training stories, which include source information.

The Examiner's Answer at page 34 states that the cited art of record teaches the inter-story similarity vectors for source-identified stories of claim 1 since "no where in the claim language is it claimed that the source information is used in the determination." Again, Appellants submit that in order to properly determine inter-story similarity vectors for at least one story-pair of the source-identified training stories, the source information for the training stories must inherently be considered and processed. Additionally, the Examiner's Answer states that:

Pirolli clearly discloses the creation of inter-document similarity vectors at col. 7, lines 53-67, **for each web page a document similarity is determined using the dot product of the similarity vectors computed for the documents, this is done for each pair of pages.** (emphasis in original).

However, as stated in Appellant's Appeal Brief (pages 16-17), the vectors taught by Pirolli are clearly based only on the words (content) of the document and do not include source identification information. The content of the web pages in Pirolli is tokenized so that the individual words of the web page can be counted. This process does not take into account the source information of the document, and thus cannot reasonably be interpreted to read onto claim 1.

The Examiner's Answer at page 35 contends that Maybury discloses determining link label information for that at least one story-pair, where the link label information indicates the existence of at least one link between a pair of stories in the source-identified training stories and where the linked source-identified stories are related to the same event. However, as discussed in Appellant's Appeal Brief (pages 17-18), Maybury teaches exactly the opposite of finding stories linked to the same event. Notably, Maybury (col. 19, lines 33-38) describes how the "system over-generated story segments, which increased the number of stories that were found. In three cases of over segmentation, a story crossed a commercial boundary and was broken into two individual stories. In one case, a story consisted of two sub-stories, the Peruvian Army and the Peruvian Economy." As evidenced by this section of Maybury, the goal of Maybury is to separate an individual document into multiple documents (sub-stories) based on the subject matter, rather than finding separate stories linked to the same event. As described above, claim 1 clearly recites a limitation for determining link label information indicating a link between a pair of stories, and that the linked source-identified stories are related to the same event.

*B. Reply respective to the § 103(a) rejections of claims 2, 21, 40 and 59 (and remaining dependent claims) alleging obviousness over Sundaresan in view of Pirolli and further in view of Maybury.*

With respect to claim 2, the Examiner's Answer at pages 35-36 states that the claim does not "disclose the utilization of the source-identification as statistics, but merely determines a statistics of the source-pair." This is incorrect, however, as claim 2

recites “determining at least one source-pair statistics for the at least one story-pair” which is a step in the method for determining inter-story similarity vectors for source-identified training stories. For example, the Appellant’s specification (page 5, lines 2-4) describes the process of determining inter-story similarity statistics for source-identified training stories:

Statistical normalizations and transformations are applied to the terms of the automatically recognized speech story and the values of the inter-story similarity metrics based on the source information.

Thus, claim 2 clearly must utilize the source-identification of the source-identified training stories in order to properly determining at least one source-pair statistic for the at least one story-pair.

The Examiner’s Answer (page 36) goes on further to state that Sundaresan is directed to a step of determining inter-story similarity vectors comprising the steps of determining at least one inter-story similarity metric for the story-pairs, and determining at least one source-pair statistic for the at least one story-pair since Sundaresan discloses class labels associated with documents. The Examiner’s Answer states that the “label can be thought of as a source.” However, the class labels relate to the **content** of the document rather than the **source** of the document, and are determined based on term frequency and term distribution data within the document. See Sundaresan, col. 9, lines 31-37). Therefore, the combination of Sundaresan, Maybury, and Pirolli does not teach each and every element of claim 2.

*C. Reply respective to the § 101 rejection of claim 77 (and remaining dependent claims) alleging non-patentable subject matter.*

With regard to claim 77, the Examiner’s Answer (pages 36-37) maintains that claim 77 is not directed to statutory subject matter. Specifically, the Examiner’s Answer states that “there is no transformation of the underlying subject matter to a different state or thing” and that the underlying subject matter is merely data. However, as

recognized by by *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. §101 of August 24, 2009 (Interim Guidelines)*:

An article can be electronic data that represents a physical object or substance. ... The data should be more than an abstract value. Data can be specifically identified by indicating what the data represents, the particular type or nature of the data, and/or how or from where the data was obtained. (page 5, next-to-last paragraph).

Here, with respect to claim 77, a particular article (source-identified texts) is transformed into a different state or thing through the process of “transforming transformation errors in other transformed source-identified texts based on the source-specific transformation actions in the memory.” The source-identified texts are not merely abstract data. The source-identified texts represent a story or article, which is used to communicate information to a reader. Thus, they are articles within the scope of *In re Bilski*. Furthermore, the articles are transformed to a different state through the process of correcting errors in the articles. Accordingly, claim 77 is appropriate subject matter under 35 U.S.C. §101.

*D. Reply respective to the § 103(a) rejections of claim 77 (and remaining dependent claims) alleging obviousness over Wayne in view of Brown.*

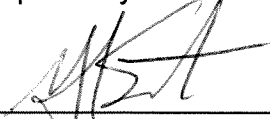
Also with regard to claim 77, the Examiner’s Answer (page 37) maintains the 35 U.S.C. §103(a) rejection by stating that “nowhere in the claim language does the claim require the transformation to occur in the ‘actual’ text or the ‘body’ of the text” and further that it is enough “that the transformations merely occur, it is irrelevant where they occur according to the claim.” The Appellant respectfully disagrees, and points to the claim language that identifies and transforms transformation errors **in other transformed source-identified texts**. Moreover, as stated in Appellant’s Appeal Brief, Brown teaches away from transforming the document since Brown is “effectively removing the stopwords without actually altering the document.” (Brown, page, 2, column 1, lines 2-6; emphasis added). The Examiner’s Answer’s interpretation that the

setting of the weights of the stopwords (maintained in a separate list) to zero is equivalent to transforming transformation errors in other transformed source-identified texts is unconventional. Therefore, claim 77 is not obvious over Wayne and Brown because Wayne and Brown do not address each and every limitation of claim 77.

### **Conclusion**

In view of the above comments together with the comments set forth in Appellant's Appeal Brief, Appellants again urge the Board to reverse the appealed rejections.

Respectfully submitted,

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